



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/585,815

07/12/2006

Kuk-hyun Han

Q95632

6267

23373 7590 03/17/2009
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

HANCE, ROBERT J

ART UNIT

PAPER NUMBER

2421

MAIL DATE

DELIVERY MODE

03/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,815	Applicant(s) HAN ET AL.	
	Examiner ROBERT HANCE	Art Unit 2421	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 01/02/2009 have been fully considered but they are not persuasive.

Applicant argues on pages 8-9 of the Remarks that the teachings of Yuen would not have motivated one skilled in the art to modify the combined system of Soundararajan and AAPA to tune to a channel "if the calculated degree of the selected channel does not satisfy the predetermined reference and a predetermined pattern of channel change inputs is received. . ." Examiner respectfully disagrees. Soundararajan discloses tuning a channel only when its calculated weight value (its "preference degree") meets a certain threshold. What this threshold is depends on the "control list" that is presently applied. See Soundararajan [0040] and Fig. 4. Different control lists can be selected by the viewer (through a menu, for example); the chosen control list dictates which channels are tuned while channel-surfing. In order to change which control list is applied, a function needs to be initiated. According to the teachings of Yuen, functions in a set top box can be initiated by entering a sequence of keys. It would have been obvious to one skilled in the art to modify the combined system of Soundararajan and AAPA by enabling the control list to be changed by entering a sequence of keys rather than forcing a viewer to navigate through menus. Therefore, in the combined system of Soundararajan, AAPA and Yuen, a channel that is not originally included in the control list (i.e. its preference degree does not meet the threshold) will be

Art Unit: 2421

tuned when the control list is switched, which is performed by entering a predetermined sequence of keys.

Applicant argues on page 9 of the Remarks that "Yuen fails to teach or suggest providing the content of a selected channel if the calculated degree for the selected channel does not satisfy the predetermined reference and a predetermined pattern of channel change inputs is received by the user input unit." The Yuen reference was not relied upon to teach this limitation; rather, it was the combination of Soundararajan, AAPA and Yuen. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 8-10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soundararajan, US Pub No 2003/0084448 in view of Applicant's Admitted Prior Art (AAPA), and further in view of Yuen et al., US Patent No 5,488,409.

As to claim 1 Soundararajan discloses an apparatus for dynamically managing a user's favorite channels, the apparatus comprising:

a user input unit receiving a channel change input from the user (Fig. 1: 125);

a channel list storage unit storing channel preference information regarding the user's preference degrees for channels (Paragraph 33; Fig. 2: 250)

a control unit calculating a preference degree for a channel selected in response to the channel change input received by the user input unit and analyzing a pattern of channel change inputs (Paragraphs 36-40 – processor 230 calculates time spent watching each channel (which is an analysis of pattern of channel change inputs) thereby calculating a preference degree for each channel. When a user scrolls through channels, only preferred channels are "surfing"); and

an output unit (Fig. 1: 110) providing content of the selected channel according to calculation and analysis results of the control unit (Paragraphs 36-40 – a user "surfs" only preferred channels),

wherein the control unit provides the content of the selected channel through the output unit if the calculated preference degree for the selected channel satisfies a predetermined reference (Paragraph 40 – only channels whose weight (preference degree) meets a certain threshold are tuned).

Soundararajan fails to disclose storing an entire channel list comprising channels receivable using a tuner.

However, AAPA discloses storing an entire channel list comprising channels receivable using a tuner (Page 1 of the Specification, Paragraph 4).

Art Unit: 2421

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Soundararajan with the teachings of AAPA. The rationale for this modification would have been to avoid scrolling through channels that a tuner cannot receive when channel-surfing.

The combined system of Soundararajan and AAPA fail to disclose that the control unit provides content of the selected channel through the output unit if the calculated degree for the selected channel does not satisfy the predetermined reference and a predetermined pattern of channel change inputs is received by the user input unit.

However, in an analogous art, Yuen discloses switching between functions in a television receiver by entering a predetermined sequence of keys on a user input unit (col. 6 lines 46-50).

It would have been obvious to one of ordinary skill in the art to modify the combined system of Soundararajan and AAPA to allow the entering a key sequence or pattern of key entries, as taught by Yuen, to initiate a function such as switching between a "favorite channel list" and an "entire receivable channel list." The rationale for this modification would have been to allow this function to be initiated without providing any additional special function keys, and thereby avoiding cluttering a user input device with extra keys.

As to claim 2 the combined system of Soundararajan, AAPA and Yuen disclose the apparatus of claim 1, wherein the channel preference information is an

Art Unit: 2421

accumulation of times while the user stays at each channel (Soundararajan Paragraphs 36-40).

As to claim 4, Claim 4 calls for changing to the next consecutive channel whose calculated preference degree does not satisfy the predetermined reference (i.e. is not a favorite channel) by inputting a pattern of “channel up - channel down - channel up” or a pattern of “channel down – channel up – channel down.” In making selections in the television environment it is typical in the art to enter a key sequence or combination of key entries to activate a desired function. For example, Yuen et al. disclose that sequences of conventional keys can be entered to initiate functions, rather than providing special function keys (col. 6 lines 46-50).

It would have been obvious to one of ordinary skill in the art to modify the combined system of Soundararajan and AAPA to include any key sequence or pattern of key entries to activate any function or any program, since applicant has not disclosed that the specific pattern of key sequences solves any stated problem or is for any particular purpose and it appears that the system would operate or perform equally well with any key sequence.

As to claim 5 the combined system of Soundararajan, AAPA and Yuen disclose the apparatus of claim 4, wherein when the calculated preference degree for the selected channel does not satisfy the predetermined reference of the selected channel whose content is provided according to the pattern of the channel change

Art Unit: 2421

inputs, the control unit provides the content of the selected channel through the output unit if the selected channel is present between two channels that have preference degrees satisfying the predetermined reference and that are adjacent to the selected channel (see rejection of claim 4 – a non-favorite channel will be tuned to after the input of a particular sequence of keys. Therefore, if a non-favorite channel is present between two favorite channels and the mode-switching sequence of keys is input, the non-favorite channel will be displayed).

As to claim 7 combined system of Soundararajan, AAPA and Yuen disclose the apparatus of claim 1, wherein the predetermined pattern of channel change inputs is that 'channel up' or 'channel down' is received as the channel change input a predetermined number of consecutive times (see similar reasoning in the rejection of claim 4. Pressing a key a predetermined number of consecutive times to perform a given function is analogous to entering a predetermined sequence of keys to perform a function)

It would have been obvious to one of ordinary skill in the art to modify the combined system of Soundararajan and AAPA to allow for pressing a key a predetermined number of times to activate any function or any program, since applicant has not disclosed that the specific pattern of key sequences solves any stated problem or is for any particular purpose and it appears that the system would operate or perform equally well with any key sequence.

As to claim 8 the combined system of Soundararajan, AAPA and Yuen disclose the apparatus of claim 1, wherein the content is a broadcast program (Soundararajan Paragraph 27).

As to claims 9-10 and 16 see similar rejections of claims 1-2 and 8, respectively.

As to claims 12-13 and 15 see similar rejections of claims 4-5 and 7, respectively.

3. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soundararajan, AAPA and Yuen as applied to claim 2 above, and further in view of Wugofski et al., US Pub No 2003/0056216.

As to claim 3 the combined system of Soundararajan, AAPA and Yuen fail to disclose the apparatus of claim 2, wherein the accumulation is an accumulation of times while the user stays at each channel in each time zone.

However, in an analogous art, Wugofski discloses calculating favorite channels as a function of time that a user watches channels during certain time slots (i.e. time zones) (Paragraph 44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system of Soundararajan, AAPA and Yuen with the teachings of Wugofski. The rationale for this modification would have been to adapt a

Art Unit: 2421

favorite channels list to the fact that users watch different channels during different time slots – for example, news channels in the mornings and movie channels in the evenings.

As to claim 11 see similar rejection of claim 3.

4. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soundararajan, AAPA and Yuen as applied to claim 1 above, and further in view of Taylor, US Pub No 2005/0278648.

Claims 6 and 14 call for changing to the next consecutive channel whose calculated preference degree does not satisfy the predetermined reference (i.e. is not a favorite channel) by inputting ‘channel up’ or ‘channel down’ as a channel change input for a predetermined period of time. In making selections in the television environment it is typical in the art to press and hold a key to activate a desired function. For example, Taylor discloses that a key can be pressed and held for a period of time to perform a function different from the function normally assigned to that key (Paragraph 56 - the mute key can be pressed and held to change transparency of an EPG).

It would have been obvious to one of ordinary skill in the art to modify the combined system of Soundararajan, AAPA and Yuen to allow for a key to be pressed and held in order to switch between a “favorite channel list” and an “entire receivable channel list.” The rationale for this modification would have been to allow this function

Art Unit: 2421

to be initiated without providing any additional special function keys, and thereby avoiding cluttering a user input device with extra keys.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT HANCE whose telephone number is (571)270-5319. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2421

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John W. Miller/
Supervisory Patent Examiner, Art Unit 2421

ROBERT HANCE
Examiner
Art Unit 2421

/ROBERT HANCE/
Examiner, Art Unit 2421